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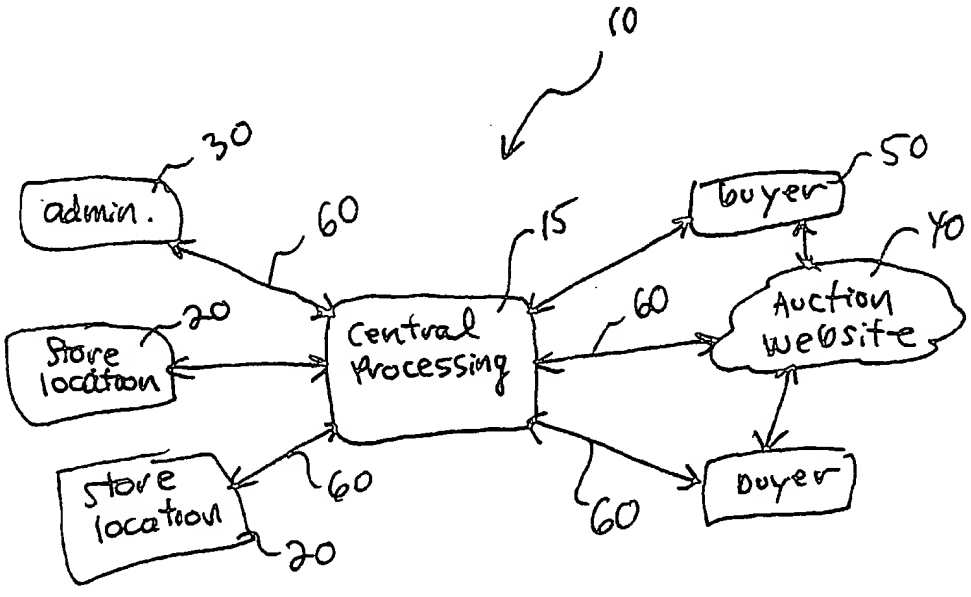
[Continued on next page]

(54) Title: SYSTEM AND METHOD OF EXECUTING AUCTION AND DELIVERY OF GOODS



(57) Abstract: A system and method for providing assistance to the seller in a web-based auction transaction (40) is provided. According to one illustrative embodiment, a method of providing assistance in a web-based auction transaction (40) between a buyer (50) and a seller is provided. The method includes the steps of receiving and storing the item to be auctioned from the seller, electronically submitting the item to an auctioneer on behalf of the seller; contacting the buyer (50) on behalf of the seller; retrieving payment and shipping information from the buyer (50), causing the item to be shipped to the buyer (50), and forwarding payment to the seller.

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SYSTEM AND METHOD OF EXECUTING AUCTION AND DELIVERY OF GOODS

Related Applications

This application is claims priority under 35 U.S.C. § 119(e) to U.S. Provisional Application Serial No. 60/153,827, filed September 14, 1999.

Background of the Invention

Internet auction websites are well known and in great use today. Such sites include eBay™, Amazon™, and Yahoo™ among others. In using these sites, generally, the seller registers and is given a user ID, and posts the item to be auctioned on the auction site for a predetermined time period. If the seller wishes to post a picture with the item the seller needs to digitally capture an image of the item, and the image needs to be hosted on a website. Auction sites generally will not provide a hosting website to display a picture of the item.

If the item generates a winning bid, the auction site puts the winning bidder (the "buyer") into contact with the seller. At this point, the seller and buyer are on their own to determine when, where and how payment will be made, and when, where and how shipment will occur. This can result in considerable frustration and a waste of time for both parties.

In terms of seller frustration, the buyer may delay sending payment, or send an incorrect form of payment (e.g., a personal check that requires three days to clear and could bounce), or an incorrect total of payment, etc. The trouble of packaging and shipping the item is also time-consuming and burdensome to the seller. In terms of buyer frustration, the seller may keep the payment and never send the goods, or delay in sending the item after payment was received, or send the goods to the wrong address, or improperly package the item. Further, seller and buyer alike may be apprehensive about giving out their personal addresses. These frustrations are heightened for buyers and sellers who frequently use such auction sites.

There are applications that assist the seller in the Internet auction process, for example, by uploading an item to an auction site in a format that utilizes particular graphics or images. There does not exist, however, a system or process that provides complete auction assistance to the seller and buyer from the time the seller decides to post an item on an auction site, to payment of the seller and auction site, to delivery of the item to the buyer.

Summary of the Invention

A system and method for providing assistance to the seller in a web-based auction transaction is provided. According to one illustrative embodiment, a method of executing a web-based auction transaction between a buyer and a seller is provided. The method includes the steps of receiving and storing an item to be auctioned from the seller; electronically submitting data related to the item to an auctioneer on behalf of the seller so that the auctioneer can auction the item; contacting a buyer identified by the auctioneer on behalf of the seller; retrieving payment and shipping information from the buyer; causing the item to be shipped to the buyer; and, forwarding payment to the seller.

Brief Description of the Drawings

The invention will be better understood and appreciated by the following detailed description of illustrative embodiments thereof, and the accompanying drawings, in which:

Figure 1 shows a schematic illustrative embodiment of a system for assisting a seller in an Internet auction transaction;

Figure 2 shows a flow chart depicting method steps executed by the system shown in Figure 1;

Figure 3 shows a schematic representation of the central processing station of Figure 1 in greater detail; and

Figure 4 shows flow chart depicting method steps executed by the various parts of the central processing station of Figure 3.

Detailed Description of a Preferred Embodiment of the Invention

According to one preferred embodiment of the invention, Figure 1 shows a network system 10 that includes a central processing station 1 which preferably includes a server connected to an Internet Service Provider (ISP). The central processing station is monitored and controlled by an administrator 30, which is preferably a general purpose personal computer using Windows NT™ operating system and Interne Explorer™ 5.01 browser.

Coupled to the central processing station are a plurality of "store locations" 20 which are similarly equipped general purpose personal computers remotely located at a packaging and shipping companies. The central processing station 15, administrator 30, and store location computers 20 form a network established by a company providing a service to seller's of products on auction sites (hereinafter the "service company").

The system also includes a web-based auction site 40, for example, e-Bay™, Yahoo™, or Amazon™. The buyers 50 are preferably home computer users that are browsing auction site 40. Central Processing station 15, store locations 20, administrator 30, auction website 40, and buyer 50 communicate with each other via communications interfaces 60, which are preferably Internet connections, for example, via dial-up modem, point-to-point communications network, local or wide area network, or other type of communication media. The foregoing invention, however, should not be limited to the foregoing system description, as any appropriate communications interface, computer platform, network arrangement, operating system, etc., can be used to practice the invention.

According to the foregoing preferred embodiment, one or more sellers (not shown in Figure 1) are seeking to sell a product on auction site 40. The central processing station 15 enables a method of assisting the seller in the performing the tasks associated with selling a product on an auction site, e.g., interacting with potential buyers, collecting payment from a buyer, packaging the product, shipping the product to the buyer, and paying fees to both the auction company and the packaging and shipping company, and distributing payment to the seller.

Figure 2 shows a flow chart that depicts the steps performed by the central processing station 15 in assisting the seller in selling an item on auction website 40 to a buyer 50. In order to post an item on an auction site, the seller of the item usually needs to register with auction site. In the foregoing system and method, however, the actual seller of the item need not register with the auction site because the service company is registered with the auction site. Thus, in step 99, the service company, via administrator 30, which is preferably located at the service company, pre-registers with the auction site, providing the auction site with the usual information required, i.e., a user ID, an email address, credit card information to pay the auction fees, and a location that will serve to notify bidders of the item location.

In the foregoing preferred method, the service company registers each store location 20 separately. By way of example, a first store is registered under the user ID MYEZSALE0001, a second store location as MYEZSALE0002, etc. In this example, the first portion of the user ID denotes the name of the service company, and the second portion a number associated with the store location. Again by way of example, the email addresses of myezsale0001@myezsale.com and myezsale0002@myezsale.com are provided for the aforementioned store location registrations. The email addresses provided are aliases routed to the same mail box at the central processing station 15 which processes all communications

from the auction site. The credit card information is an account of the service company and is the same for each store location registration. The service company also registers the physical location of the store location to be used as the item location by the auction site for items submitted from that store.

After the pre-registration step, in step 100, the seller delivers the item for sale to one of the store locations 20. In step 110, an operator at the store location retrieves and inputs various data related to the seller and the seller's item for sale via the store location computer 20. The seller's data includes the seller's name, address, home phone number, business number, e-mail, bank account or credit card number. The item data includes product description, minimum bid price, reserve bid price, product dimensions, product weight, product packaging cost, and a picture of the item to be displayed on the auction site. An item category is also selected for the item depending on which auction site is used, as the item categories differ from auction site to auction site. The reserve bid price is the minimum price that the seller will accept, while the minimum bid price is the price at or above which bidding must start, which can be below the reserve bid price. The seller need only register once in the system, as the seller's profile is saved in the database 300 and is recalled by the store location each time the seller brings a new item to the store location for auction.

Although not required by most auction sites, according to the preferred embodiment, the store location includes a web camera that the operator of the store location computer uses to take a picture of the item which is automatically retrieved and stored by the central processing station. To be as user-friendly as possible, this is a one-click operation for the store location computer operator, not requiring a local save and send operation. When the operator saves an image an Active X control module on the store location computer's browser automatically temporarily locally stores the image and uses File Transfer Protocol (FTP) to forward the image to the central processing station.

The data retrieval and input step 110 involves the store location computer interacting with a web-based application performed on central processing station 15. When contacted by one of the store locations 20 for the purpose of registering a new item, the central processing station performs a new item information capture routine that prompts an operator at the store location to enter the required item data, and the seller's data if the seller has not previously registered. The seller's data is stored by the central processing station but is not uploaded to the auction site. All of the data retrieved at the store location is communicated to and saved in a database at the central processing station which keeps files for each item and seller.

It should be noted that the item data could vary depending on the requirements of the particular auction site selected by the seller. Thus, the central processing station will also prompt the store operator (who asks the seller) to select a particular auction site for the item; if no auction site is selected the central processing station can select a default site, such as eBay™.

When data retrieval is complete, that is, when the seller has supplied to the store location, and the central processing station has received from the store location computer, all of the necessary data, the seller's role in the auction is complete.

Upon receipt of the item data, the central processing station assigns a unique item ID to the item, and, in step 120, uploads the item information to the auction website. By way of example, the item ID is an eight character alpha-numeric number with the first four characters referring to the store and the last four characters corresponding to the item. For example, 00010001 denotes item 0001 at store 0001. The unique item ID is be used to track the progress of the item being auctioned and identify communications with the auction site regarding that item in system 10.

The information uploaded includes the store location user ID, item title, item description, item category (each auction site has its own category list), minimum bid price, reserve bid price (which the auction site knows but is not shown to the bidder), and a picture of the item. As stated above , the picture is optional because auction sites such as eBay™ do not generally require a picture of the item. The item title uses the item identifier ID in addition to title of the item itself, for example, "Babe Ruth baseball card 00010001." Since the auction site will recognize the store location user ID (pre-registered in step 99), the auction site already has payment information, an item location corresponding to the store location, and an email address associated with the store location user ID. The central processing station also provides a link to a webpage supported by the station which shows the picture of the product for sale.

After the item is uploaded to the auction site, the item is auctioned on the site in the auctioning technique used by that particular site. If a successful buyer is not identified, for example, if no bid exceeded a specified minimum, the auction site will notify the central processing station (in step 130) using the email address provided by the service company during pre-registration. Preferably, during data retrieval step 110, the seller was queried as to whether, if a buyer was not identified, the seller wants to automatically re-list the item. Thus, in step 140, if the seller had indicated that it wanted the item re-listed, the central processing

station will again upload the same item to the auction site for another auction period. The central processing stations will update the item information in its database that the item is being re-listed.

If, in step 140, the central processing station determines that the item has already been re-listed, or if the seller gave instructions in step 110 not to re-list the item, the seller is notified that no sale has occurred in step 150. Preferably, the seller is notified by email generated automatically by the central processing station. Alternatively, the central processing station can notify the store location, which could then notify the seller.

In step 160, the central processing station, in real time upon receipt of the no sale notification by the auction site, deducts a service fee charged by the service company, an auction fee charged by the auction site, and pre-packing and shipping fees charged by the store location from the seller's credit card account (provided in step 110). Preferably, all of these fees are automatically deducted from the seller's credit card account by the central processing station. The central processing station, or the service company, then remits payment to the store location and the auction site on behalf of the seller.

The shipping fee referred to in step 160 is only charged if the if the seller has indicated that it wants the item shipped, rather than the seller picking the item up from the store location. Accordingly, the seller can indicate to the store location, in step 110, or after it receives notification of a no sale, that it wants the item shipped back to it. The pre-package fee is essentially a storage fee charged by the store location for storing the item during the auction period. In step 170, the item is returned to the seller.

If, in step 130, the central processing station receives notification that a winning bidder (the "buyer") has been identified by the auction, as is conventional in most auction sites, the auction site forwards the e-mail address of the buyer with the sale notification to the email address provided by the seller. Here, in step 180, the seller's email address provided in step 120 routes the notification to the central processing station. Upon receipt of this notification, in step 190, the central processing station contacts the buyer via email and begins an interactive process with the buyer in which the central processing station prompts the buyer to enter payment information and shipping information (as explained in greater detail below).

In step 200, the central processing station charges the buyer's credit card (or other means of electronic payment) the amount of the winning bid price of the item plus shipping fees (to be paid to the store location from the service company), and causes the buyer's payment to be transferred into the service company's account. In step 210, the central

processing station instructs the store location via email to ship the product to the address provided by the buyer in step 190. Step 210 occurs instantaneously when the buyer's payment information is verified. In step 220, the service company forwards payment (electronically or otherwise) to the seller, less the service fee charged by the service company, which includes the auction site's auction fee and which is later remitted from the service company to the auction site. The service company also subsequently forwards payment to the auction site and the store location.

Although not indicated in Figure 2, preferably, the seller is notified by email that the product has been successfully auctioned, for example, after the buyer's payment information has been verified.

The administrator 30 provides oversight and control of the process. The administrator is used to add or delete store locations from the network, view items and item data, manually upload item data, mark items as sold and inform the store location of any transaction development, send messages to one or all store locations, audit the trail of an item, view the system error log, and add, edit and delete forms provided to the store location for the purpose of receiving seller and item data.

Figure 3 shows central processing station 15 in greater detail. The central processing station includes a front end application 250 that handles user inputs, for example, from buyer 50, or store location 20 of Figure 1. The front end application, according to the preferred embodiment, is written in PHP scripts, although the invention is not limited to any particular programming language.

Also included in the central processing station is a data monitor 260. Data monitor 260 is a continuous acting stand alone application (called a "daemon") written in Perl Script for handling most background jobs, such as uploading items to auction site 40, timing out automatic uploads, checking for buyer inactivity timeout, checking for store activity, and alerting the administrator 30.

Mail monitor 270 is also a daemon written in Perl Script for handling e-mails from the auction site 40. Such e-mails include submission confirmation, no sale, and winning bid e-mails. The mail monitor also updates an item status stored in database 300, and sends appropriate notifications and alerts to the administer 30 and buyer 50. Financial monitor 280 is also a Perl Script application that handles credit card charging and financial data. Both the data monitor and mail monitor are based on a continuous interval sequential loop functionality. The super monitor 290 insures that all three monitors are running properly,

such that the super monitor sends an e-mail to the administrator 30 if one of the monitors breaks or is hung-up.

Preferably, monitors 250, 260, 270 and 280 are supported on a single server, such as an Apache™ web server. However, the monitors need not be located on the same server, or in the same location as they function independently.

Figure 4 shows a flow chart that depicts the functionality of each monitor and how they relate to one another. The legend in the lower left-hand corner in Figure 4 indicates which monitor or front end application performs the functions indicated in the flow chart.

In step 310 in response to a store location loading a new item into the system, the new item information is transferred to database 300 and the front end application 250 updates the new item status stored in database 300 as pending upload. In step 320, the front end script calls for the item upload for the new item.

After a predetermined time after item upload, the data monitor, in step 330, checks the if the mail monitor has updated the status of the item to "bidding" in step 340. The mail monitor updates the item status to "Bidding" if, in step 390, the mail monitor received a submission confirmation email from the auction site, and in steps 330 and 390 if the item status has been updated to "bidding," the item upload and the item status are "OK." If the item status has not been updated to "bidding" because the submission confirmation email has not been received, the mail monitor logs an error in the error log in database 300 and sends an email to alert administrator 30.

If no submission confirmation e-mail has been received from the auction site after a predetermined time, the data monitor in step 330 determines that the item upload was not successful, and, in step 350, begins a batch upload process of the item to the auction site. As seen in steps 360, 370, and 380, if after a predetermined time the batch upload process has not been successful, i.e., the mail monitor has still not received a submission confirmation e-mail from the auction site, the data monitor will notify the administrator in step 380 and the administrator will manually upload the item to the auction site.

The mail monitor, automatically parses any e-mail received from the auction site, and will recognize certain emails from the auction site, including the aforementioned submission confirmation email, a winning bid email, and a no sale email. Any other e-mail is indicated in the error log and in step 440 is forwarded to the administrator 30. This includes, for example, any e-mails from a buyer, seller or store location.

Upon receipt of a winning bid email, in step 450, the mail monitor parses the buyer address from the e-mail which is provided by the auction site, and sends an e-mail to the buyer. The e-mail to the buyer provides a Internet link that will connect the buyer to a secure web-based application executed by the front end application 250. By way of example, the following is the type of email sent to the buyer:

> We are pleased that you are the successful bidder on eBay for: black pen -Item #1234 with a high bid of $23.00.Please click on the link below within 3 business days of this notice to submit your credit card and shipping information through our secure buyer's Website. We will pack and ship your item within 24 hours and e-mail you shipping and tracking information. If you are unable to access our secure Website, please forward this message to customerservice@myezsale.com. Link to Secure Website
>
> <LINK>
>
> Thank you for using the myezsale network! To learn more about our online auction listing service please visit www.myezsale.com.

The mail monitor also, upon receipt of the winning bid notification, creates an audit entry in database 300 and sets the item status as "pending buyer info." Accordingly, in step 460, assuming the buyer responds and contacts the buyer's website on central processing station 15, the front end application, which handles all user input, prompts the buyer to submit credit card and shipping information. Upon receipt of the credit card information from the buyer, the financial monitor is enabled to contact a verification service, for example, Cyber Cash™ in step 470. Cyber Cash™ authorizes the credit card in step 480 and charges the bid amount and shipping costs to the buyer's credit card, as also explained in step 220 of Figure 2. The financial monitor also sends all payment information in batch format to a financial tracking and computing application such as Great Plains financial software.

If, after step 450 the buyer does not respond to the e-mail address sent by the mail monitor which asks the buyer to log onto the buyer's website, the data monitor, which begins a timer for buyer response as soon as the status is set to "pending buyer info," will time out after a predetermined period in step 490. Similarly, if the buyer logs onto the buyer's website,

but fails to submit credit card information in step 460, the data monitor will also time the buyer out after a predetermined time period in step 500.

After one of these time outs occurs, the mail monitor in step 510 will set the item status as a "no sale" and enter the no sale into the audit log and into a sales table entry log. In step 520, the financial monitor, recognizing the no sale, will charge the seller the service fee and auction fee for a no sale, and return the item as described in steps 160 and 170 of Figure 2. Alternatively, after a winning bid with a buyer time out, as in steps 490 and 500, the item can be automatically re-listed by the data monitor at no cost to the seller.

If, in step 430, the mail monitor recognize a no sale e-mail from the auction site, the mail monitor executes steps 51 and 520 as described above.

Thus, the foregoing system an method of auctioning an item greatly simplifies the auction process for the seller and buyer. The seller need only bring the item to a location and then can expect payment sometime in the future without any further action. The buyer need only provide its credit card and then is assured shipment of the item immediately from a professional packaging and shipping company. The buyer and seller also remain anonymous to one another throughout the process.

Having thus described certain embodiments of the present invention, various alterations, modifications, and improvements will readily occur to those skilled in the art. Such alterations, modifications, and improvements are intended to be within the spirit and scope of the invention. Accordingly, the foregoing description is by way of example only, and not intended to be limiting.

What is claimed is:

CLAIMS

1. A method of executing a web-based auction transaction between a buyer and a seller, comprising the steps of:

(A) receiving and storing an item to be auctioned from the seller;

(B) electronically submitting data related to the item to an auctioneer on behalf of the seller so that the auctioneer can auction the item;

(C) contacting a buyer identified by the auctioneer on behalf of the seller;

(D) retrieving payment and shipping information from the buyer;

(E) causing the item to be shipped to the buyer; and

(F) forwarding payment to the seller.

2. The method of claim 1, wherein step (A) includes storing the item at a shipping company, and step (E) includes instructing the shipping company to ship the item to the buyer.

3. The method of claim 1, wherein step (C) includes contacting the buyer by email.

4. The method of claim 3, wherein step (D) includes sending a link to a website application to the buyer, wherein the website is an interactive application that prompts the buyer to enter said payment and shipping information.

5. The method of claim 1, wherein the data includes a digital image of the item.

6. A system for executing a web-based auction between a buyer and a seller comprising:

an auction website;

a store location to receive an item to be auctioned on the auction website from the seller; and

a central processing station to receive data relating to the item from the store location, and submit the data to the auction website on behalf of the seller in order for the item to be auctioned on the website.

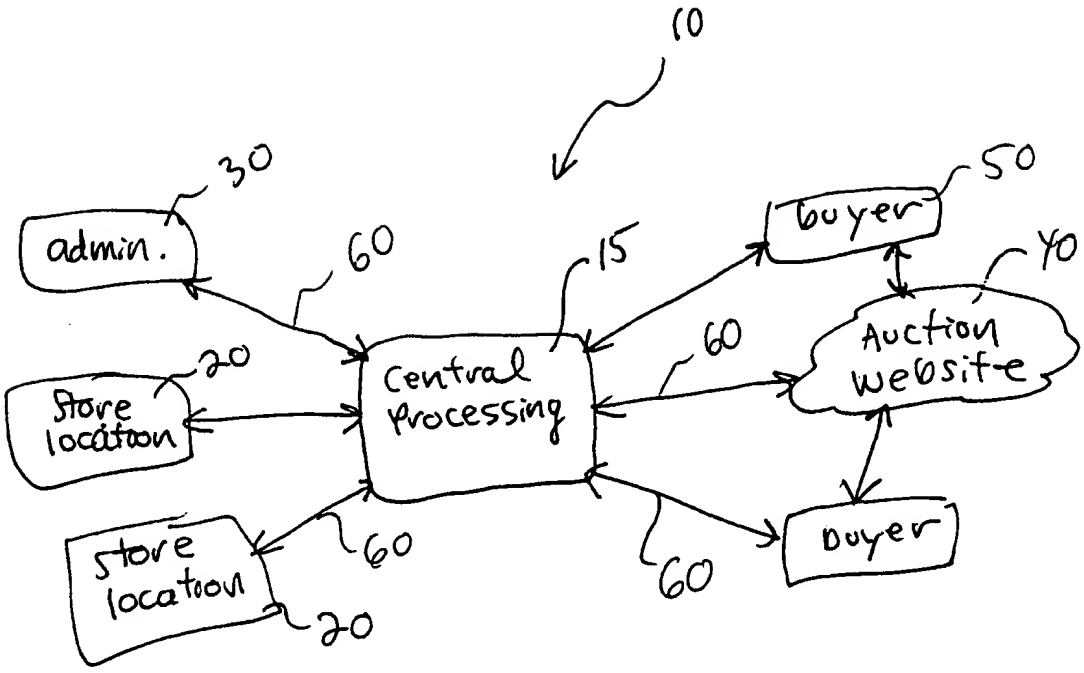
10
30
admin.
60
15
50
buyer
40
Auction website
60
20
Store location
Central Processing
60
store location
20
60
60
buyer

Figure 1

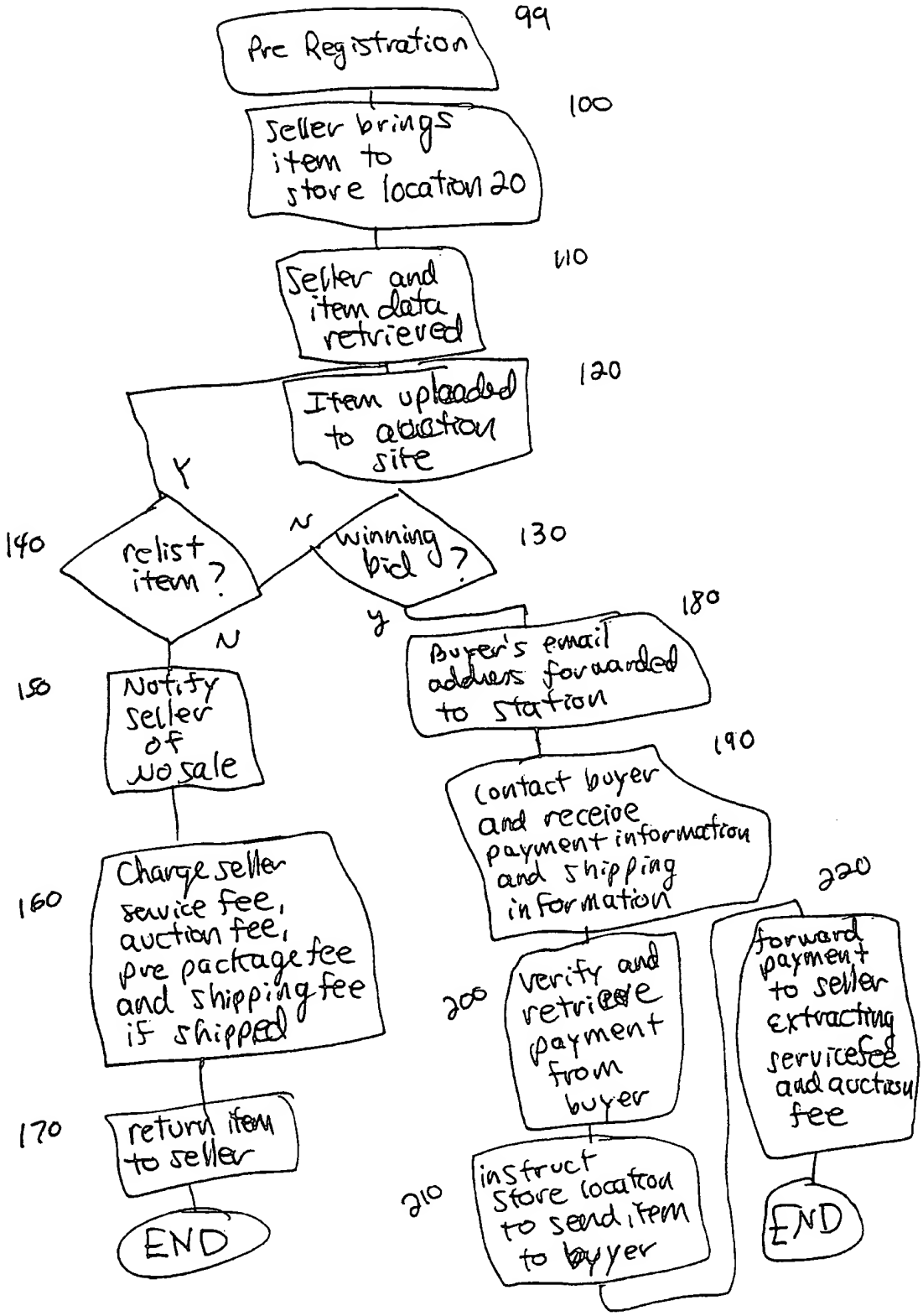
Pre Registration
99
Seller brings item to store location 20
100
Seller and item data retrieved
110
Item uploaded to auction site
120
Y
N
relist item?
140
winning bid?
130
N
Y
Notify seller of no sale
150
Buyer's email address forwarded to station
180
Contact buyer and receive payment information and shipping information
190
Charge seller service fee, auction fee, pre package fee and shipping fee if shipped
160
Verify and retrieve payment from buyer
200
forward payment to seller extracting servicefee and auction fee
220
return item to seller
170
instruct store location to send item to buyer
210
END
END

Figure 2

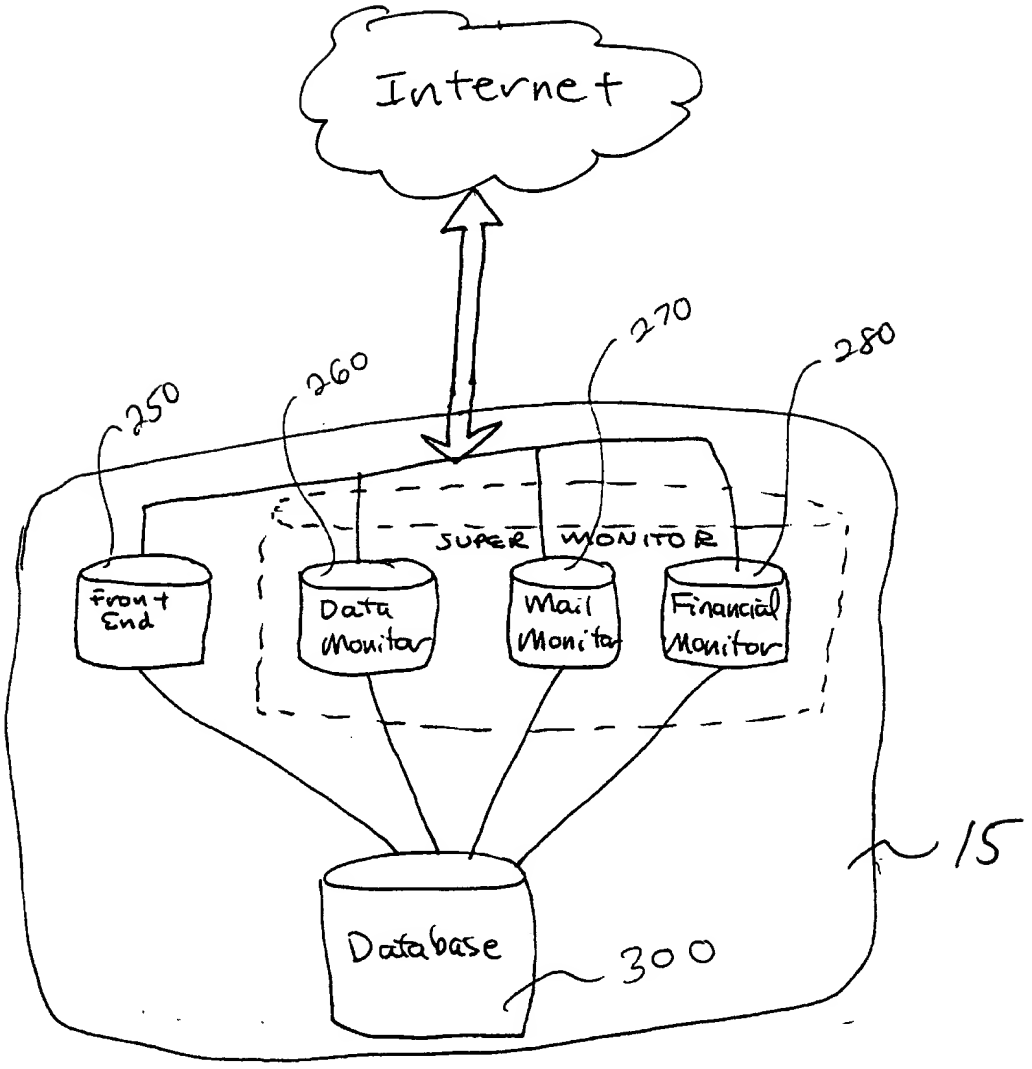
Internet
250
260
270
280
SUPER MONITOR
Front End
Data Monitor
Mail Monitor
Financial Monitor
15
Database
300

Figure 3

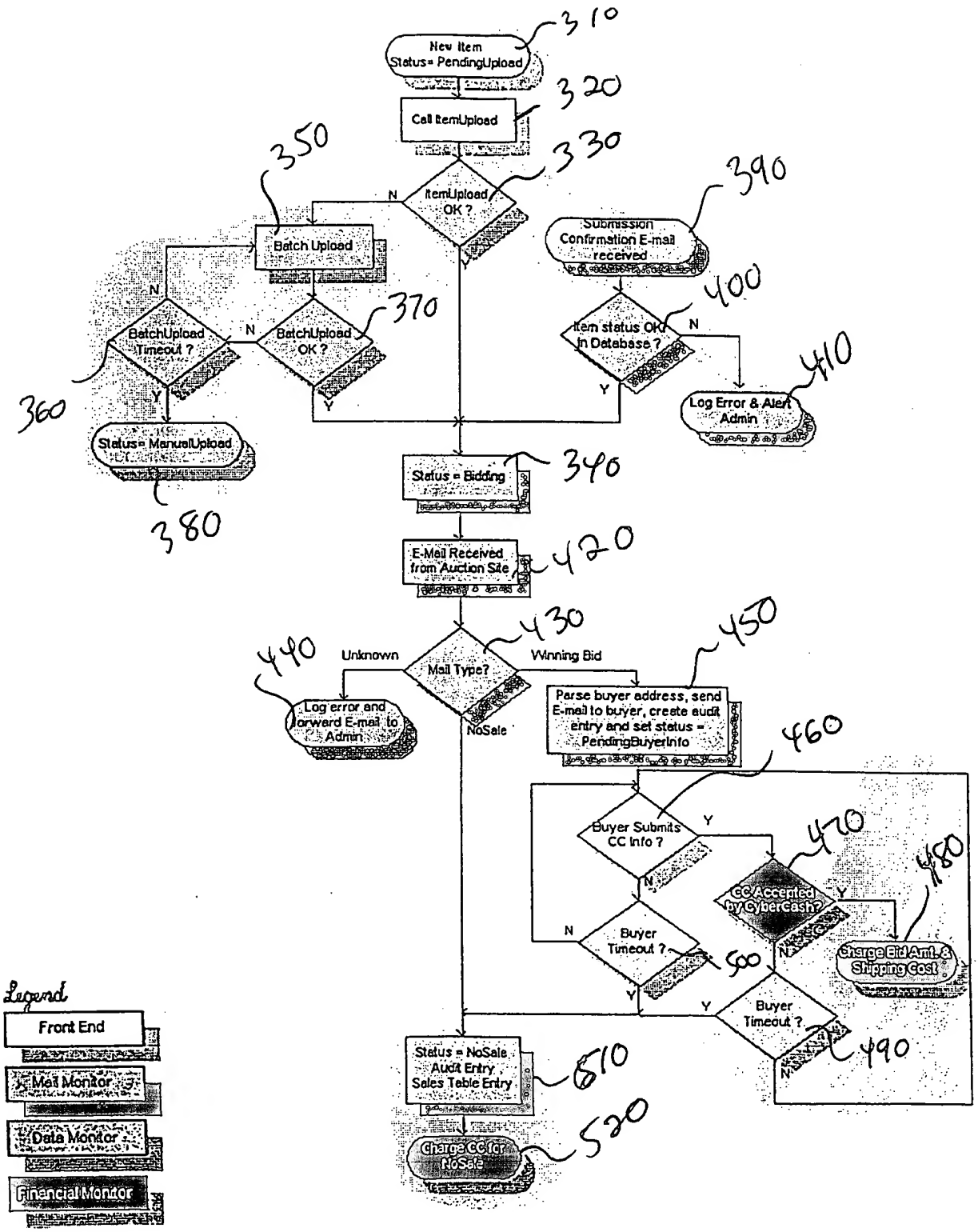
New Item Status= PendingUpload
310
Call ItemUpload
320
ItemUpload OK ?
330
N
Y
Batch Upload
350
BatchUpload Timeout ?
BatchUpload OK ?
370
360
Status= ManualUpload
380
Submission Confirmation E-mail received
390
Item status OK in Database ?
400
Log Error & Alert Admin
410
Status = Bidding
340
E-Mail Received from Auction Site
420
Mail Type?
430
Unknown
Winning Bid
NoSale
440
Log error and forward E-mail to Admin
450
Parse buyer address, send E-mail to buyer, create audit entry and set status = PendingBuyerInfo
460
Buyer Submits CC Info ?
470
CC Accepted by Cybercash?
480
Charge Bid Amt & Shipping Cost
Buyer Timeout ?
500
Buyer Timeout ?
490
Status = NoSale Audit Entry Sales Table Entry
810
Charge CC for NoSale
520
Legend
Front End
Mail Monitor
Data Monitor
Financial Monitor

Figure 4

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US00/25289

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) :G06F 17/60
US CL :705/37,39

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 705/37,39

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

NONE

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

WEST, DIALOG

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,826,244 A (HUBERMAN) 20 October 1998, col. 3, line 40 thru col. 18, line 67.	1-6
X,P	US 6,078,906 A (HUBERMAN) 20 June 2000, col. 7, line 65 thru col. 18, line 59.	1-6
A	US 5,835,896 A (FISHER et al) 10 November 1998, entire document.	1-6
A	US 5,905,975 A (AUSUBEL) 18 May 1999, entire document.	1-6
A,P	US 6,026,383 A (AUSUBEL) 15 February 2000, entire document.	1-6

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

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